

TRANSFER OF IMAGES TO A MOBILE COMPUTING TOOL

John Crosbie, Shrikant Acharya, and Gregory Springer

ABSTRACT

When a document generated from an application (e.g., a Microsoft® PowerPoint® application, a Microsoft® Word® application or a Microsoft® Excel® application) is printed, each page of the document is treated as a separate image (i.e., a bit map output by the application).

Then, one or more templates are generated for the document, with each template containing common elements for a set of images in the document. The set of images may include a portion or all of the images in the document. For each set of images, sets of changes are identified. Each set of changes may identify differences between the image and the template. Alternatively, each set of changes may identify differences between the image and another image.

The templates and corresponding sets of changes to each image in a set of images may be reduced from one color space (e.g., a 24-bit color space in which each pixel is represented by 24 bits) to another color space (e.g., an 8-bit color space in which each pixel is represented by 8 bits). The reduced templates and corresponding sets of changes are then compressed and formatted into a native file transfer format understood by a mobile computing tool. The compressed and formatted data is referred to herein as a "mobile presentation." Mobile presentations may be appended together to form one document.

The mobile presentation may be transferred to the mobile computing tool, where the data is decompressed and images are rebuilt from the templates and corresponding sets of changes.